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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,635

05/02/2005

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07/12/2007

EXAMINER

GORMAN, DARREN W

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

07/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,635

Applicant(s)

KUEGLER ET AL.

Examiner

Darren W. Gorman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-13 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10 and 16 is/are rejected.
- 7) ☒ Claim(s) 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/01/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's cancellation of claims 1-9, 14, 15 and 17 in the amendment filed 21 May 2007 is acknowledged. Claims 10-13 and 16 remain pending. It is noted that none of the claims previously withdrawn from consideration as being drawn to a nonelected species remain pending in the instant application.

Information Disclosure Statement

2. The IDS filed on 01 June 2007 is hereby acknowledged and has been placed of record. Please find attached a signed and initialed copy of the PTO 1449.

Drawings

3. The replacement drawing sheets for Figures 1 and 2 were received on May 21, 2007. These replacement drawing sheets are not acceptable. Applicant filed drawing sheets labeled as "Replacement Sheets", however these "replacement" sheets are actually annotated marked-up sheets showing proposed changes, rather than actual clean replacement sheets. Re-submitting clean replacement sheets adopting the proposed changes of the annotated marked-up sheets would be acceptable for overcoming the drawing objections set forth in the office action mailed December 28, 2006.

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Previously Indicated Allowable Subject Matter

4. The indicated allowability of claims 10-13 and 16 is regretfully withdrawn in view of the newly discovered reference to Lambert (USPN 6,378,503). A rejection based on the newly cited reference follows.

Claim Objections

5. Claim 12 is objected to because of the following informalities: On line 3 of claim 12, the recitation, "the conical valve seat" does not have clear antecedent basis, since the valve seat of the claimed injection valve has not yet been limited to one which is "conical".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Lambert, USPN 6,378,503.

Lambert shows a fuel injector (see Figures 1-3) having a valve body (10) in which a bore (11) is embodied that is defined on its end toward a combustion chamber by a valve seat at which at least one injection opening (18) originates, and having a hollow valve needle assembly (12a, 12b, 34), which is located longitudinally displaceably in the bore and which has a valve sealing

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face (lower end of needle elements 12a, 12b and 34) on its end oriented toward the valve seat, wherein a first sealing region (region of the hollow needle assembly facing seat portion 14) and a second sealing region (region of the hollow needle assembly facing seat portion 36) are embodied on the valve sealing face, and the hollow valve needle cooperates with the valve seat in such a way that upon contact of the hollow valve needle with the valve seat, the first sealing region upstream of the at least one injection opening and the second sealing region downstream of that injection opening effect sealing between the valve sealing face and the valve seat, wherein the valve sealing face has a first conical face (lower end defining the sealing face of element 12b), a second conical face (lower end defining the sealing face of element 34) located downstream of the first conical face, and a third conical face (lower end defining the sealing face of element 12a) located downstream of the second conical face, and wherein a valve needle (20) is located longitudinally displaceably in the hollow valve needle and controls the opening of at least one further injection opening (28), which originates at the valve seat (see again Figures 1-3; and see column 3, line 44 through column 4, line 26).

Allowable Subject Matter

8. Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements set forth above under paragraphs 3 and 5 of this office action, or

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specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

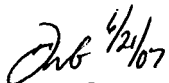
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Darren W Gorman
Examiner
Art Unit 3752


DWG
June 21, 2007